Amendments to the Claims:

This listing of claims replaces all previous versions, and listings, of the claims in this application.

Listing of the Claims:

1. (cancelled)

2. (currently amended) The method according to claim 13 ~~claim 1~~, wherein the randomly assembling of the polyepitope chimeric genes with different lengths in step c) is carried out simultaneously by following two methods: combined polymerase chain reaction and primer-free polymerase chain reaction, and isocaudamer linkage in the vector for random assembling.

3. (currently amended) The method according to claim 13 ~~claim 1~~, wherein the antigen of interest in step a) is an antigen related to infectious diseases, tumors or autoimmune diseases.

4. (original) The method according to claim 3, wherein the antigen of interest in step a) is an antigen of *Plasmodium falciparum*.

5.-7.(cancelled).

8. (currently amended) The method according to claim 23 ~~claim 7~~, wherein the randomly assembling of the polyepitope chimeric genes with different lengths in step c) is carried out simultaneously by following two methods: combined polymerase chain reaction and primer-free polymerase chain reaction, and isocaudamer linkage in the vector for random assembling.

9. (currently amended) The method according to claim 23 ~~claim 7~~, wherein the antigen of interest In step a) is an antigen related to infectious diseases, tumors or autoimmune diseases.

10. (original) The method according to claim 9, wherein the antigen of interest in step a) is an antigen of *Plasmodium falciparum*.

11. - 12 (cancelled)

13. (new) A method for preparing polyepitope chimeric gene vaccines, the method comprising the steps of:

a) selecting, synthesizing, and cloning Into a vector a plurality of nucleic acid molecules each encoding a single epitope of an antigen of interest;

b) constructing nucleic acid molecules encoding randomly combined bi-epitopes in the vectors of step a) by isocaudamer linkage;

c) randomly assembling the nucleic acid molecules encoding bi-epitopes into polyepitope chimeric genes with different lengths;

d) (i) isolating the polyepitope chimeric genes with different lengths into a plurality of different length ranges,

(ii) purifying and amplifying the isolated polyepitope chimeric genes,

(iii) subcloning the isolated polyepitope chimeric genes into expression vectors to obtain polyepitope chimeric gene expression libraries,

e) assessing the diversity of the polyepitope chimeric genes in the polyepitope chimeric gene expression libraries;

f) (i) immunizing animals with the polyepitope chimeric gene expression libraries to provide expression products of the genes;

(ii) detecting the immunogenicity of the expression products of the genes;

g) selecting at least one polyepitope chimeric gene expression library based on the diversity of the polyepitope gene expression libraries and the immunogenicity of the expression products of the genes in the polyepitope gene expression libraries; and

h) screening the selected at least one polyepitope chimeric gene expression library to identify polyepitope chimeric gene clones for use as polyepitope chimeric gene vaccines.

14. (new) A method according to claim 13 wherein the at least one polyepitope chimeric gene expression library is screened by at least one high-throughput immunochemistry method.

15. (new) A method according to claim 13 wherein the expression libraries selected have high diversity as measured by single strand conformation polymorphism.

16. (new) A method according to claim 13 wherein the expression libraries selected have polyepitope chimeric genes having a diversity of greater than 85%.

17. (new) A method according to claim 13 wherein the expression products of the genes in the selected gene libraries have high immunogenicity.

18. (new) A method according to claim 17 wherein the immunogenicity is determined in terms of antiserum titer.

19. (new) A method according to claim 13 wherein the expression libraries selected have immunological characteristics related to a predetermined antigen epitope.

20. (new) A method according to claim 19 wherein the predetermined antigen epitope relates to a specific immunological type.

21. (new) A method according to claim 19 wherein the predetermined antigen epitope elicits the generation of a specific cytokine.

22. (new) A method according to claim 19 wherein the predetermined antigen epitope elicits a cross-protective effect in an animal model.

23. (new) A method for preparing polyepitope chimeric gene vaccines, comprising the steps of:

a) selecting, synthesizing and cloning Into a vector a plurality of nucleic acid molecules each encoding a single epitope of an antigen of interest;

b) constructing nucleic acid molecules encoding randomly combined bi-epitopes in the vectors of step a) by isocaudamer linkage;

c) randomly assembling the nucleic acid molecules encoding bi-epitopes of step b) into polyepitope chimeric genes with different lengths;

d) (i) isolating the polyepitope chimeric genes into a plurality of different length ranges,

(ii) cloning the polyepitope chimeric genes into expression vectors to obtain polyepitope chimeric gene expression libraries, the expression libraries corresponding to the different length ranges into which the polyepitope chimeric genes were isolated;

e) assessing the diversity of the polyepitope chimeric genes in the polyepitope chimeric gene expression libraries and selecting at least one polyepitope chimeric gene library based on diversity for use in preparing polyepitope chimeric gene vaccines.

24. (new) The method of claim 23 further comprising (i) immunizing animals with the polyepitope chimeric gene expression libraries to provide expression products of the genes, and (ii) detecting the immunogenicity of the expression products of the genes;

25. (new) The method of claim 23 further comprising screening the selected at least one polyepitope chimeric gene expression library to identify polyepitope chimeric gene clones for use as polyepitope chimeric gene vaccines.